

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1-67, 84, 85, 87-105, and 107 (canceled).

Claim 68 (previously presented). A method for screening substances to determine their pharmacological activity comprising the steps of:

- contacting said substance with a pharmacological target molecule in a sample compartment;
- irradiating that sample compartment to generate a signal functionally related to the interaction of said substance with said pharmacological target using a confocal optical system; and
- withdrawing a withdrawal volume element comprising said interacting substance and target molecule to a receptor compartment wherein the withdrawal is triggered by said signal.

Claim 69 (previously presented). The method of claim 68, wherein said confocal optical system comprises a multitude of confocal pinhole apertures in the image plane.

Claim 70 (previously presented). The method of claim 68, wherein said confocal optical system comprises optical waveguides in the image plane.

Claim 71 (previously presented). The method of claim 68, wherein said confocal optical system comprises multiarray detectors in the image plane.

Claim 72 (previously presented). The method of claim 68, wherein said signal is produced by a correlated analytical system.

- Claim 73 (previously presented). The method of claim 72, wherein said correlated analytical system is a fluorescence correlation spectroscopy system.
- Claim 74 (previously presented). The method of claim 68, wherein said contacting is in the presence of a fluorescently labeled ligand.
- Claim 75 (previously presented). The method of claim 68, wherein withdrawing said withdrawal volume element is by receptor means selected from the group consisting of a capillary tube or a membrane.
- Claim 76 (previously presented). The method of claim 75, wherein said capillary tube has a tip connecting said sample compartment to said receptor compartment.
- Claim 77 (previously presented). The method of claim 76, wherein said tip has an aperture with size D according to the formula $100\ \mu\text{m} \leq D \leq 0.1\ \mu\text{m}$.
- Claim 78 (previously presented). The method of claim 75, wherein said membrane has a pore connecting said sample compartment to said receptor compartment.
- Claim 79 (previously presented). The method of claim 78, wherein said pore has an aperture with size D according to the formula $100\ \mu\text{m} \leq D \leq 0.1\ \mu\text{m}$.
- Claim 80 (previously presented). The method of claim 68, wherein said signal generating and withdrawing steps are repeated in series, whereby separately withdrawn volume elements are gathered in said receptor compartment.
- Claim 81 (previously presented). The method of claim 68, wherein said withdrawing step is performed by a procedure selected from the group consisting of inducing an electrical field

between a sample fluid in said sample compartment and a receptor fluid in said receptor compartment, inducing in said sample compartment a pressure greater than in said receptor compartment, inducing a light pressure impulse; and combinations thereof.

Claim 82 (previously presented). The method of claim 81, wherein said withdrawing step is performed by briefly applying an electrical field between first and second electrodes, wherein said first electrode contacts said sample fluid in said sample compartment and said second electrode contacts said receptor fluid in said receptor compartment.

Claim 83 (previously presented). The method of claim 81, wherein said withdrawing step is performed by inducing a pressure differential by increasing pressure inside said sample compartment and/or by reducing pressure inside said receptor compartment.

Claim 86 (previously presented). The method of claim 68, wherein said optical system detects said signal, analyzes specific molecular properties of ingredients of said sample, and time-controls the withdrawing on-line under control of computer software.

Claim 106 (previously presented). A device for performing the method according to claim 68 comprising

- a sample compartment and a receptor compartment connected by
- receptor means;
- a confocal optical system including signal generating means cooperating with
- withdrawing means, connected to said receptor means, said withdrawing means is controlled mechanically, optically or electrically.

- Claim 108 (new). The method of claim 83, wherein said pressure differential is caused by reducing pressure using a piezo-controlled dispenser module having a filling volume inside said receptor compartment.
- Claim 109 (new). The method of claim 108, wherein said piston pump device is controlled by a stepping motor and the pressure increase amount is controlled by the number of droplets dispensed by steps of the stepping motor.
- Claim 110 (new). The method of claim 83, wherein said pressure differential is caused by increasing pressure or reducing pressure caused by change of piston position of a coupled piston pump device.
- Claim 111 (new). The method of claim 110, wherein said piston pump device is controlled by a stepping motor and the pressure increase amount is controlled by the number of droplets dispensed by steps of the stepping motor.

Amendments to the drawings:

Attached hereto are corrected replacement sheets of drawings for Figs. 1, 2, 4, and 5. As required in the Office Action, the corrected sheets include a left hand margin of 1 inch.